

The timing of emergency surgery: an audit

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Background

Out-of-hours operating, particularly after midnight, may result in a poorer outcome for patients, due to reduced senior surgical and anaesthetic involvement and sleep deprivation.

NCEPOD suggests that non-emergency cases should be managed within the standard or extended working day.

NCEPOD classification

1	Immediate	Life or limb/ organ-saving
2	Urgent	Within hours, usually after resuscitation
3	Expedited	Within days
4	Elective	Planned

Why classify cases?

- Inform clinicians & staff who prepare procedure lists
- Ensure patients are operated on within an appropriate time frame
- Check staff are operating out-of-hours only when it is appropriate

Standards for best practice

- ≥60% of emergency cases are started between 0800-1800
- ≤ 5% of emergency cases are started between 2400-0800
- 100% of cases started between 2400-0800 should be classified as '1 – immediate', or reasons for variance documented

Audit objectives

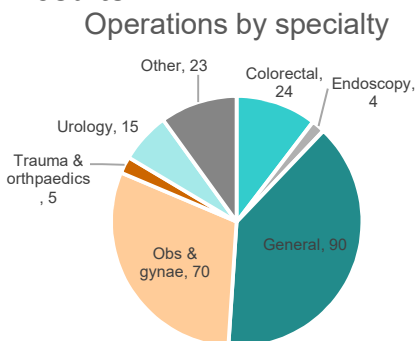
1. To establish the proportion of cases in the emergency theatre which took place at each time of day:
 - Daytime, 0800-1700
 - Evening, 1700-2400
 - Overnight, 2400-0800

2. To establish the proportion of overnight cases not classified as '1 – immediate', and the reasons why.

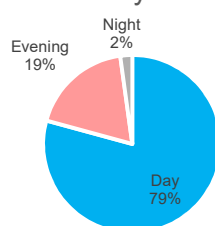
Audit method

Retrospective data collection
6 weeks (Feb-March 2018)
Emergency theatre (Theatre 7)
Data from Surginet

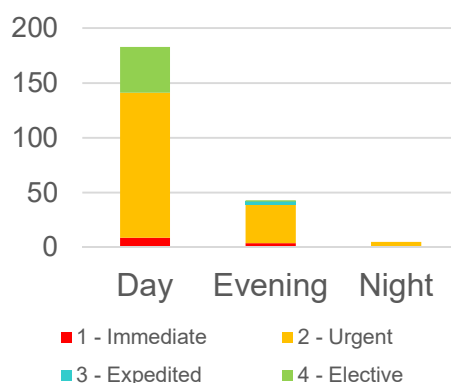
Results



Operations by time of day



Operations by time & NCEPOD classification



Were best practice standards met?

≥60% of cases are in the day	79%
≤5% of cases are at night	2%
100% of night cases are 'immediate'	1 immediate but 4 urgent

Operations performed overnight

1 'immediate' – emergency laparotomy
4 'urgent' cases:

- Laparotomy for perforation
- Appendicectomy, with perforation
- Suspected ruptured ectopic
- Suspected testicular torsion

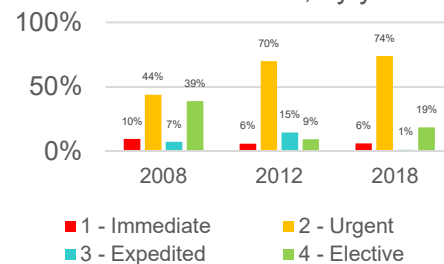
Could they have waited?
Should they have had NCEPOD classification of immediate?

Other outcomes

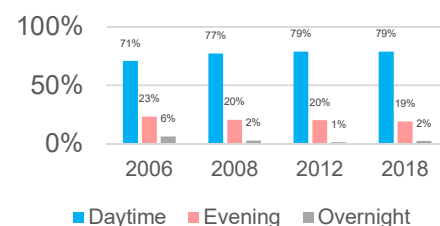
Previous audits have generated action plans aiming to:

- Improve NCEPOD classification (previously not mandatory)
- Reduce the number of expedited or elective cases performed in the emergency theatre

Operations by NCEPOD classification, by year



Operations by time of day, by year



Conclusions

1. NCEPOD classification is now a mandatory aspect of booking surgery, so we have complete data.
2. A smaller proportion of emergency theatre procedures are expedited or elective, compared to previous years.
3. The majority of emergency operations continue to be performed in daytime hours.
4. Not all overnight cases are 'immediate', although the 4 cases identified perhaps should have been.

Action Plan

Some of the operations classified as 'urgent' were probably 'immediate'

- Educate surgeons about NCEPOD
- Add to surgery new joiner induction?

Reasons for non-immediate operations at night are not recorded

- Discuss with theatre booking staff
- Part of the intra-operative CRS documentation?